



Delia

Sernas

Jean Patrice Delia & Miguel Sernas

- Delia age 44; Sernas age 41 at time of conviction
- Both worked at GE as Performance Engineers
- Together they launched Thermogen Power Services



CDSE

Center for Development
of Security Excellence

CASE STUDY

Theft of Trade Secrets

WHAT HAPPENED

Jean Patrice Delia worked as a General Electric (GE) performance engineer for eight years. He took a sabbatical in 2009 to pursue a graduate business degree in his native country, Canada and returned to GE in a slightly different role after completing his studies in 2011.

An FBI investigation found that after he returned to GE, Delia downloaded thousands of files from the company's system, including ones that contained trade secrets. Delia also convinced an employee within the IT department to grant him access to files that he had no legitimate reason to see. Those files contained the proposals and cost models GE used to bid on new work and contracts. Court documents show Delia collected more than 8,000 files.

In May 2012, GE learned they had an unknown competitor on a bid to service a major power plant in Saudi Arabia. The competing bid came in far under what GE had quoted and at a number that was strangely similar to GE's base cost for providing the work.

When they looked into their new competitor, GE learned the company had been incorporated in Canada by Delia.

Delia resigned when he was confronted, and the FBI began its investigation soon after.

Over many years, the FBI obtained search warrants for the email accounts, servers, and cloud storage Delia and his co-conspirator, Miguel Sernas, used for their new company. A key break came when the FBI arrested Sernas while he was traveling from Mexico to Europe on business for the firm he started with Delia.

Sernas was traveling on company business and carrying a company laptop containing GE trade secret files. The investigation also uncovered evidence that Sernas and Delia had sent the calculations over email and uploaded them to cloud storage accounts.

INDICATORS

- **Access Attributes** – In his role as a Performance Engineer at GE, Delia had access to GE's proprietary software and files.
- **Security and Compliance Incidents** - Delia convinced an employee within the IT department to grant him access to files that he had no legitimate reason to see.
- **Technical Activity** – Delia downloaded thousands of files from GE's servers, including ones that contained trade secrets.

IMPACT

Sernas pleaded guilty to conspiring to steal trade secrets and was sentenced in December 2019 to time served (approximately 12 months) and ordered to pay restitution of \$1.4 million to GE.

Delia pleaded guilty to conspiracy to steal trade secrets. His case is currently pending sentencing and he faces up to 87 months in prison under the federal sentencing guidelines.

GE spent enormous resources, over many decades, collecting operational data about its turbines from locations around the globe and then distilling that data into computer programs and engineering tools that model the performance of its turbines. In the words of a senior GE engineer who oversaw the GE business unit that created the computer programs and engineering tools, it would take “thousands and thousands” of engineering hours and “a thousand engineers” to reinvent them. These computer programs and engineering tools provided GE with a unique competitive advantage in the marketplace because they enabled GE to provide customers with unique recommendations about how to improve the performance of their GE-manufactured turbines.

ADDITIONAL INFO

The investigation showed that Delia and Sernas stole elements of a computer program and mathematical model that GE used to expertly calibrate the turbines used in power plants.

Since GE also manufactured the turbines, they had a complete understanding of them. “The company had a skill set and engineering-level details that no one else could offer,” said Assistant U.S. Attorney for the Northern District of New York Wayne Myers.

Because of their expertise, power plant operators from all over the world hired GE’s Performance Engineers to help their turbines achieve peak performance for the climate and conditions in which they were installed. The service could increase the efficiency of the turbines enough to substantially lower the plants’ operating costs.

Delia was so confident he could download thousands of proprietary files—including a valuable trade secret—and launch a company to compete against his employer without anyone figuring out what he was up to. Instead, the FBI’s Albany Field Office spent the better part of seven years uncovering the duplicity of Delia and his business partner, Miguel Sernas, who was a former GE employee.

Resources for further exploration:

- [Insider Threat Indicators Job Aid](https://www.cdse.edu/Portals/124/Documents/jobaid/insider/INTJ0181-insider-threat-indicators-job-aid.pdf)
(<https://www.cdse.edu/Portals/124/Documents/jobaid/insider/INTJ0181-insider-threat-indicators-job-aid.pdf>)
- [Privileged User Cybersecurity Responsibilities](https://public.cyber.mil/training/privileged-user-cybersecurity-responsibilities/)
(<https://public.cyber.mil/training/privileged-user-cybersecurity-responsibilities/>)
- [DHS - U.S. CERT "Combating the Insider Threat"](https://www.us-cert.gov/security-publications/Combating-Insider-Threat)
(<https://www.us-cert.gov/security-publications/Combating-Insider-Threat>)

IF YOU SEE SOMETHING, SAY SOMETHING!

Contact the appropriate POC to report any observed potential risk indicators:

Name: _____ Agency/Department: _____
Title: Supervisor/Security Officer/ITP Senior Official/ITP Manager